

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF WISCONSIN

DUCTCAP PRODUCTS INC.,
Plaintiff,

v.

Case No. 10-CV-00110

J&S FABRICATION INC., K&D SLIP COVERS,
ROBERT BUTCHELLO, and
JARED McCULLOUGH d/b/a KOVEREEZ,
Defendants.

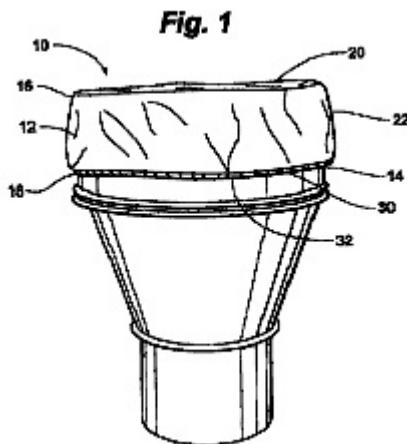
DECISION AND ORDER

Plaintiff Ductcap Products, Inc. is suing defendants J&S Fabrications, Inc., K&D Slip Covers, Robert Butchello, and Jared McCullough d/b/a Kovereez for patent and trademark infringement. The present opinion contains my claim construction.

I. BACKGROUND

On April 5, 2005, the United States Patent and Trademark Office issued U.S. Patent No. 6,874,541 (the “541 patent”) to plaintiff. The patented invention is a temporary duct cover, and a method for installing a duct cover on a duct. The temporary duct cover is designed to cover an open end of a duct in order to prevent moisture and debris from entering the duct. For example, the patent notes that the duct cover can be used to keep dust out of heating, ventilation, and air-conditioning (“HVAC”) ducts that are left open during the construction of a building. It is important to keep the HVAC ducts clean during construction because dust in the ventilation system can cause health problems for people who later use the building. The duct cover has two parts: 1) the cover envelope, or body of the duct cover, which is a flexible sheet of material that covers the open end of a duct

and folds around the duct to cover part of the duct's exterior; and 2) a circle of elastic that is attached to the open end of the cover envelope. The duct cover is essentially a bag with a piece of elastic sewn around the open end. The duct cover slides over the end of the duct like a sock, and the elastic contracts around the duct to hold the cover in place. The body of the duct cover is usually made of plastic because it is impermeable to moisture and dust. Below is Figure 1 from the '541 patent, which shows the duct cover on a duct.



II. RELEVANT CLAIM LANGUAGE

The parties disagree about the meaning of terms in claims 1–7 and 11 of the ‘541 patent. The text of these claims is provided below. The disputed terms are underlined:

Claim 1. A duct cover for installation on a duct having a known sectional area defined by

the duct exterior margin, comprising:

a cover envelop [sic] having a flexible body, the body having a substantially amorphous shape formed of a unitary, integral sheet, including an open end and an opposed closed end with a center portion extending between the open end and the

closed end to define an envelop enclosure [sic], the body being substantially impermeable relative to airborne particulate and moisture; and an elastic member being operably coupled to the body open end and having a relaxed disposition and an expanded disposition, the expanded disposition defining an opening that is area [sic] that is greater than the duct sectional area, the elastic member being contractable from the expanded disposition to a duct conforming disposition in compressive sealing engagement with the duct exterior margin.

Claim 2. The duct cover of claim 1, the body having a length dimension measured from the open end to the closed end and the open end having a diameter when the open end is disposed in a substantially circular disposition, the length dimension being substantially greater than the diameter.

Claim 3. The duct cover of claim 2, the body length dimension being between one and five times the diameter.

Claim 4. The duct cover of claim 1, the body center portion defining an interior area, the interior area being greater than the known sectional area defined by the duct exterior margin.

Claim 5. The duct cover of claim 1, the cover envelop being formed of a flexible poly plastic material.

Claim 6. A method of installing a duct cover for [sic] on a duct having an opening and a known sectional area defined by the duct exterior margin, comprising:
stretching a closed elastic member to define an interior area that is greater than the known sectional area defined by the duct exterior margin;

forming a duct cover body of a unitary, integral flexible sheet of material having a substantially amorphous shape;
sliding the duct cover over the duct opening and the duct exterior margin; and
releasing the closed elastic member to contract into a conforming, sealing, compressive engagement with the duct exterior margin.

Claim 7. The method of claim 6, including

forming a cover envelop having a body, the body having an open end and an opposed closed end with a center portion extending between the open end and the closed end to define an envelop enclosure and forming the body substantially impermeable relative to airborne particulate and moisture; and
operably coupling an elastic member to the body open end, the elastic member having a relaxed disposition and an expanded disposition, defining an opening that is area [sic] that is greater than the duct sectional area when in the expanded disposition, and defining a duct conforming disposition in compressive sealing engagement with the duct exterior margin when the elastic member is contracted from the expanded disposition.

Claim 11. The method of claim 6, including forming the cover envelop of a flexible poly plastic material.

III. DISCUSSION

A. Principles of Claim Construction

A United States patent generally contains drawings of the patented invention and a “specification.” 35 U.S.C. § 111(a)(2). The specification consists of a written description

of the invention, and one or more “claims.” 35 U.S.C. § 112. The written description provides detailed information on how to make and use the invention. Id. The claims appear after the written description and “particularly point[t] out and distinctly claim[m] the subject matter which the applicant regards as his invention.” Id. Although the claims are technically part of the specification, patent practitioners often speak as though the specification is separate from the claims. See Kristen Osenga, Linguistics and Patent Claim Construction, 38 Rutgers L.J. 61, 63 n.8 (2006). When practitioners use “specification” in this manner, they are referring to the written description. I will follow this practice.

The claims are what limit the scope of the patent. Each claim is numbered and is written as a single sentence, and each claim sets out the boundaries of a single invention. Osenga, *supra*, at 63. Thus, if a patent contains five claims, the patentee is “claiming” five distinct (though usually related) inventions. A claim can either be “independent” or it can be “dependent” on another claim. A dependent claim incorporates all of the language from another claim and then adds a limitation to it. 35 U.S.C. § 112. For example, claim 5 in the ‘541 patent is dependent on claim 1. Claim 5 claims a duct cover just like the one described in claim 1, but it adds the requirement that the body of the duct cover be made of a poly plastic material. A claim defines the “metes and bounds” of an invention, which means that the claim defines the scope of the patentee’s right to exclude others from making, using, or selling a particular type of device. Craig A. Nard, The Law of Patents 394 (2008). If another person makes a device that falls within the metes and bounds as defined by the claim, that person is liable for infringement.

Where, as here, the parties disagree about the scope of the patentee’s right to exclude, a judge must resolve the disagreement by deciding what the claims mean as a

matter of law. Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996). This process is called claim construction. In order to determine what the claims in the '541 patent mean, I must consider the ordinary meaning of the language used in the claims as it is understood by a person having ordinary skill in the relevant art. Phillips v. AWH Corp., 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc). The claim terms must be considered in the context of the patent as a whole, including the drawings, the specification, and the patent's prosecution history. Id. If necessary, I can also consider extrinsic evidence, such as dictionary definitions. Id. at 1317–18. “The construction that stays true to the claim language and most naturally aligns with the description of the invention will be, in the end, the correct construction.” Id. at 1316 (quoting Renishaw PLC v. Marposs Societa’ per Azioni, 158 F.3d 1243, 1250 (Fed. Cir. 1998)). Using these principles, I will analyze each of the disputed terms.

B. Disputed Terms

1. “Envelop”

Throughout the claims, the patentee used the word “envelop” several times when he should have written “envelope.” The error is obvious because envelop is a verb that means “to wrap up,” but the word is consistently used as a noun. See Webster’s Third New International Dictionary, 759 (1986). For example, claim 1 describes a duct cover that has “a cover envelop” that “define[s] an envelop enclosure.” The patentee obviously misspelled “envelope,” which means “something that envelops: wrapper, container, receptacle.” Id. I can correct this typographical error if “(1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification and (2) the prosecution

history does not suggest a different interpretation of the claims.” Novo Industries, L.P. v. Micro Molds Corp., 350 F.3d 1348, 1354 (Fed. Cir. 2003). I do not believe the appropriate correction is subject to debate in this case, and this term is not discussed in the patent’s prosecution history. As a result, I will add an “e” to the end of “envelop” wherever it appears in the claims. In making this change, I am merely giving the claims the meaning intended by the patentee and understood by the patent examiner. See I.T.S. Rubber Co. v. Essex Rubber Co., 272 U.S. 429, 442 (1962).

2. “duct cover”

This term appears in claims 1–6. Claim 1 describes a “duct cover for installation on a duct having a known sectional area defined by the duct exterior margin.” Claims 2–5 are dependent claims which refer to “[t]he duct cover of [claim 1 or 2],” and claim 6 describes a “method for installing a duct cover.” The context makes it clear that the term “duct cover” is being used to refer generally to the type of device that is being claimed. Therefore, I find that the term “duct cover” refers to “a device capable of being used to cover an open end of a duct.” This construction is consistent with both the specification and the drawings included in the patent, which depict a flexible piece of material covering an open end of a duct.

The parties both agree with this basic construction of “duct cover,” but plaintiff suggests adding a limitation to my definition. Plaintiff argues that the term “duct cover” refers specifically to a cover for an HVAC duct. While the specification does discuss how the invention can be used to protect HVAC ducts, the claims themselves only use the word “duct,” not “HVAC duct.” A duct is “a pipe, tube, or channel by which a substance (as water,

gas, air) is conveyed.” Webster’s Third New International Dictionary, 699. Since the claims are not necessarily limited to the embodiments described in the specification, I construe the term “duct” as encompassing more than just an HVAC duct. See Phillips, 415 F.3d at 1323.

3. “cover envelop[e]”

This term appears in claims 1, 5, 7 and 11. Claim 1 describes a duct cover that has “a cover envelop[e]” and “an elastic member” that is attached to the cover envelope. The cover envelope has:

a flexible body, the body having a substantially amorphous shape formed of a unitary, integral sheet, including an open end and an opposed closed end with a center portion extending between the open end and the closed end to define an envelop[e] enclosure.

A similar description of the cover envelope is provided in claim 7, and the specification describes the duct cover as having “two major subassemblies: envelope 12 and elastic member 14. The envelope 12 has a body 16. The body 16 has an open end 18 and an opposed closed end 20.”¹ (Decl. of Jeffrey Brown Ex. 1, ECF No. 27.) The term “cover envelop[e]” is also used interchangeably throughout the claims with the terms “body of the duct cover” and “duct cover body.” For example, claim 6 discloses a method for installing a duct cover, one step of which is forming “a duct cover body,” and claim 7 is dependent on claim 6, but describes the duct cover body as the “cover envelop[e].” Based on all of this evidence, I construe the term “cover envelope” as “the body of the claimed duct cover, or part of the duct cover that covers the open end and a section of the exterior of the duct.”

¹ The numbers in the specification reference particular points on the drawings that accompany the specification.

4. “flexible body”

Plaintiff indicated at the claim construction hearing that he is willing to accept defendants' proposed definition. Therefore, I adopt defendants' definition and find that “flexible body” means that “the body of the duct cover is flexible.”

5. “substantially amorphous shape”

This term appears in claims 1 and 6, which describe the cover envelope as having a “substantially amorphous shape.” The meaning of this term is not discussed in either the claims or the specification, but this term was discussed in the patent's prosecution history. On September 29, 2004, the patent examiner rejected the application for patent '541 because the duct cover claimed therein is too similar to the device patented in U.S. Patent No. 3,168,209 issued to Brookins et al. (the “Brookins patent”). (Decl. of Jeffrey C. Brown Ex. 2, at DC 000030.) The Brookins patent claims a “dust cover” that has “a generally cylindrical body member constructed of flexible material” and “a generally circular end wall secured to and closing one end of said cylindrical body member.” (Id. Ex. 4, Col. 3, 2–5.) The patentee persuaded the examiner to reverse the rejection and allow the claims in the '541 patent because the claimed duct cover has an “amorphous shape.” The examiner explained in the Notice of Allowance: “Brookins et al. clearly does not disclosed [sic] a dust cover being amorphous nor is there any reason why the dust cover of Brookins et al. should be made amorphous without destroying the intent of its preformed shape.” (Id. Ex. 2, at DC 000006.) The word “amorphous” means “without definite form or shape: formless,” Webster's Third New International Dictionary, 72, and the examiner read the phrase “amorphous shape” as meaning that the claimed duct cover does not have a pre-

formed circular or other shape. Thus, I construe the term “substantially amorphous shape” as meaning that “the claimed duct cover is without definite form and can conform to ducts with different shapes.”

This construction is supported by the specification. The specification describes the invention as “a duct cover made of a suitable waterproof material having an elastic structure such that the cover conforms to the shape of the duct it is placed one. The elastic structure allows the cover to conform to a round, square, rectangular or other shaped duct.”

6. “formed of a unitary, integral sheet”

This term is used in claim 1 to describe the cover envelope, which is “formed of a unitary, integral sheet.” “Unitary” means “having the character of a unit: not divided or discontinuous”; “integral” means “an entire thing: totality, whole”; and a “sheet” is “a broad stretch or surface of something that is usu. thin in comparison to its length and breadth.”

Webster’s Third New International Dictionary, 1174, 2091, 2500. Based on the context the term is used in and these dictionary definitions, I find that “formed of a unitary, integral sheet” means that “the cover envelope or body of the duct cover is comprised of a single piece of material.” The parties’ proposed definitions are both very similar to my own, and my construction is again consistent with the specification and drawings. The drawings depict a single piece of material pulled over the open end of a duct.

7. “open end”

This term appears in claims 1, 2, and 7. Claim 1 describes a duct cover with a cover envelope that has “an open end and an opposed closed end with a center portion extending between the open end and the closed end to define an envelop[e] enclosure.”

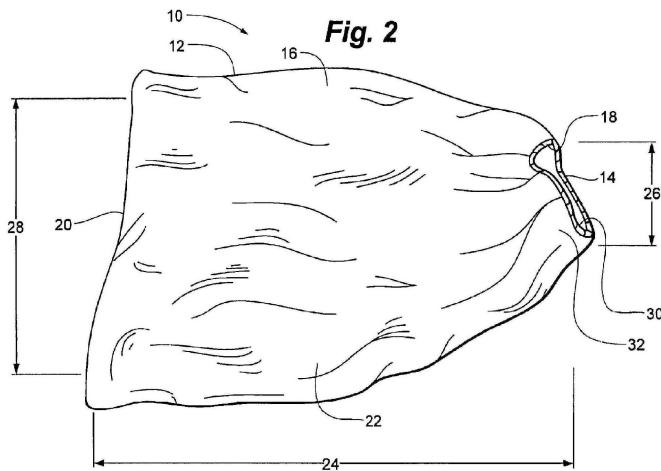
Claim 1 also notes that a circle of elastic is attached to the open end of the cover envelope to hold the duct cover in place. Based on the description of the open end in claim 1, I find that the “open end” is “the end of the cover envelope or body of the duct cover that is open so it can slide over the end of the duct.”

8. “closed end”

This term also appears in claims 1, 2, and 7. Based on my construction of the term “open end” above, I find that the “closed end” is “the end of the duct cover that is opposite the open end and that covers the duct opening.” Defendant argues that the claims require the “closed end” to be “identifiable or discernable,” but I do not think this phrase adds meaningfully to the construction of this term. It is sufficient to state that the duct cover has a closed end.

9. “center portion” or “body center portion”

The term “center portion” appears in claims 1 and 7, and the term “body center portion” is used in claim 4. As noted above, claim 1 describes the “center portion” as the part of the cover envelope that extends between the open and the closed ends. The specification elaborates further: “A generally tubular shaped center portion 22 extends between the open end 18 and the closed end 20.” Below is Figure 2 from the patent. The center portion of the cover envelope is point 22 on this drawing:



As Figure 2 demonstrates, the center portion is what gives the duct cover length, allowing it to extend over part of the duct's exterior. The center portion works in conjunction with the elastic to hold the duct cover onto the duct.

In construing this term, it is important to note that the length of the center portion can vary. Defendant argues that the duct covers claimed in the '541 patent must have "an identifiable or discernable" center portion, which means the patent does not cover short duct covers that cover only a small portion of the duct's exterior. Claim 1, however, describes a duct cover of any length. Claim 1 is an independent claim, and it is presumed to be broader than claims 2–5, which are dependent on it. See Phillips, 415 F.3d at 1324–25. Claims 2 and 3 claim "[t]he duct cover of claim 1," but require the duct cover to be of a certain length. Therefore, claim 1 should be read as encompassing duct covers of all lengths. This makes sense since claim 1 requires the duct cover to have "a center portion," but does not specify the length of the center portion. Therefore, I construe the "center portion" simply as "the part of the cover envelope, or body of the duct cover, that extends between the open end and the closed end."

10. “envelop[e] enclosure”

This term appears in claims 1 and 7. Based on the description of the “cover envelop[e]” in claim 1, I find that the “envelop[e] enclosure” is “the enclosure formed by the cover envelope, defined by the open end of the cover envelope, the opposed closed end, and the center portion of the cover envelope extending between the open end and the closed end.” The parties’ proposed definitions are both very similar to my own.

11. “known sectional area defined by the duct exterior margin”

This term is listed in the parties’ joint statement requesting claim construction, but there does not appear to be an actual dispute about its meaning. Defendants argue that this term means that the duct exterior margin has a known sectional area that is a two-dimensional area that can be measured in square inches or feet. Plaintiff believes there is no reason to construe this term because its meaning is obvious, but he is willing to accept defendants’ proposed construction. Since the parties basically agree on the meaning of this term, I will adopt a definition similar to defendants’ definition. I find, based on the plain language of the claims, that the “known sectional area defined by the duct exterior margin” is “the two-dimensional area at the open end of the duct that is defined by the duct’s exterior margin.”

12. “forming a duct cover body” or “forming a cover envelop[e]”

These terms appear in claims 6, 7, and 11, which disclose methods for installing a duct cover. Claim 6 is an independent claim, and claims 7 and 11 are dependent on claim 6. Claim 6 discloses a method for installing a duct cover that involves: stretching a circle of elastic so that it is larger than the duct exterior margin; “forming a duct cover body of a

unitary, integral flexible sheet of material having a substantially amorphous shape”; sliding the duct cover over the duct; and releasing the circle of elastic so that it contracts against the duct’s exterior. Claim 7 describes the method of claim 6, which includes “forming a cover envelop[e],” but adds the step of “operably coupling” a piece of elastic to the open end of the duct cover body. Claim 11 discloses the method of claim 6, but adds the step of “forming the cover envelop[e] of a flexible poly plastic material.” The question raised by the parties is whether the methods disclosed in these claims involve a manufacturing step—whether the word “forming” refers to the act of constructing the body of the duct cover, or only to the act of shaping a pre-made duct cover to fit over a particular duct.

Neither the specification nor the prosecution history for the patent address the method claims in claims 6–11. The verb “to form” can either mean “to give form or shape to: frame, construct, make” or “to give a particular shape to: shape, mold.” Webster’s Third New International Dictionary, 893. In the context of claims 6, 7, and 11, I find that “forming” should be read as “constructing.” This would make one step of these method claims either “constructing a duct cover body of a unitary, integral, flexible sheet of material” or “constructing a cover envelope of a flexible poly plastic material.” This interpretation does make the wording of the claims somewhat awkward. For example, if the steps listed in claim 6 are read in order, a person installing a duct cover would first stretch the piece of elastic so that it can fit over the duct and then stop to create the body of the duct cover. I am, however, bound by the plain language of the claims, and unless a method claim actually recites an order, the steps are not necessarily construed to require one. Interactive Gift Express, Inc. v. Compuserve Inc., 256 F.3d 1323, 1342–43. Claims 6 and 11 describe “forming” a duct cover body out of particular materials (a “flexible sheet of material” or “poly

plastic material"), and claim 7 adds the second manufacturing step of "operably coupling" a circle of elastic to the cover envelope. The claims do not refer to a pre-formed duct cover. Thus, I read the word "forming" in claims 6, 7, and 11 as "constructing."

13. "sliding the duct cover over the duct opening and the duct exterior margin"

This term appears in claim 6. Defendants propose that this term means "the act of sliding the duct cover over the duct opening and the duct exterior margin." Plaintiff concedes that defendants' construction is correct to the extent that it is consistent with a reading of claim 6 as a method for installing a duct cover. Since defendants have simply construed this term as describing one step in the process of installing a duct cover, I will adopt defendants' proposed definition.

14. "releasing the closed elastic member to contract into a conforming, sealing, compressive engagement with the duct exterior margin"

Plaintiff indicated at the claim construction hearing that he is willing to accept defendants' proposed construction of this term. Therefore, I will adopt defendants' definition. This term refers to "the act of releasing the closed elastic member to contract into a conforming, sealing, compressive engagement with the duct exterior margin."

IV. CONCLUSION

For the reasons stated, I construe the '541 patent as described above.

Dated at Milwaukee, Wisconsin, this 24th day of February 2012.

s/_____
LYNN ADELMAN
District Judge